

Applicant : Doyle E. Bennett et al.
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Attorney's Docket No.: 05542-511001 / 6214/CMP

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-18 (cancelled)

19. (Currently Amended) ~~The system of claim 17~~ A polishing system, comprising:
a polishing pad support to hold a polishing pad having a polishing surface;
a carrier to hold a substrate against the polishing surface of the polishing pad; and
an eddy current monitoring system including an induction coil, the eddy current
monitoring system positioned to generate a magnetic field through the pad into a sensing region
of the system during polishing, wherein each component of the carrier with at least a portion
positioned during polishing within a sensing distance of the polishing surface in the sensing
region is nonconductive, and wherein, in response to generating the magnetic field, the eddy
current monitoring system is to receive an eddy current signal from one or more conductive
regions on the substrate, ~~an eddy current signal from one or more conductive components of the~~
~~system in the sensing region~~, and a noise signal during polishing, and wherein the sensing
distance is a distance beyond which the an eddy current signal from ~~the~~ one or more conductive
components of the ~~system in the sensing region~~ carrier is not discernible over ~~either~~ the noise
signal.

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20. (Currently Amended) ~~The system of claim 17~~ A polishing system, comprising:
a polishing pad support to hold a polishing pad having a polishing surface;
a carrier to hold a substrate against the polishing surface of the polishing pad; and
an eddy current monitoring system including an induction coil positioned to generate a
magnetic field through the polishing pad into a sensing region of the system, wherein each
component of the carrier with at least a portion positioned during polishing within a sensing
distance of the polishing surface in the sensing region is nonconductive, and wherein, in response
to generating the magnetic field, the eddy current monitoring system is to receive an eddy current
signal from one or more conductive regions on the substrate and an eddy current signal from one
or more conductive components of the system ~~carrier in the sensing region during polishing~~, and
wherein the sensing distance is a distance beyond which the eddy current signal from the one or
more conductive components of the system ~~in the sensing region~~ carrier is about equal to or less
than an error amount corresponding to an acceptable amount of signal inaccuracy.

21. (New) The system of claim 19, wherein the sensing distance is between about
one tenth of an inch and about two inches.

22. (New) The system of claim 21, wherein the sensing distance is between about
one inch and about two inches.

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23. (New) The system of claim 19, wherein the each component of the carrier with at least a portion positioned during polishing within a sensing distance of the polishing surface in the sensing region comprises one or more fasteners.

24. (New) The system of claim 19, wherein the each component of the carrier with at least a portion positioned during polishing within a sensing distance of the polishing surface in the sensing region comprises one or more components of a substrate backing assembly.

25. (New) The system of claim 24, wherein the one or more components of a substrate backing assembly include at least one of a ring and a plate.

26. (New) The system of claim 24, wherein the one or more components of a substrate backing assembly comprises a flexible membrane and one or more substantially rigid components.

27. (New) The system of claim 19, wherein each component of the carrier is non-conductive.

28. (New) The system of claim 20, wherein the sensing distance is between about one tenth of an inch and about one inch.

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29. (New) The system of claim 20, wherein the sensing distance is between about one inch and about two inches.

30. (New) The system of claim 20, wherein the each component of the carrier with at least a portion positioned during polishing within a sensing distance of the polishing surface in the sensing region comprises one or more fasteners.

31. (New) The system of claim 20, wherein the each component of the carrier with at least a portion positioned during polishing within a sensing distance of the polishing surface in the sensing region comprises one or more components of a substrate backing assembly.

32. (New) The system of claim 31, wherein the one or more components of a substrate backing assembly include at least one of a ring and a plate.

33. (New) The system of claim 31, wherein the one or more components of a substrate backing assembly comprises a flexible membrane and one or more substantially rigid components.

34. (New) The system of claim 20, wherein each component of the carrier is non-conductive.